

IN THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in this application:

Claims **1-32** (Canceled).

33. (New) An orthodontic appliance organizer tray for storing, in bulk, tooth-positioning orthodontic appliances and facilitating the setup of individual orthodontic cases, the organizer tray comprising:

- a generally horizontal upwardly facing surface;
- an orthodontic set-up tray support in a fixed orientation on the upwardly facing surface;
- a plurality of holders on the upwardly facing surface each in a fixed predetermined geometric relationship to the fixed orientation of the set-up tray support;
- each of the holders being configured to rigidly and removably support a plurality of tooth-positioning orthodontic appliances or one or more packages thereof .

34. (New) The orthodontic organizer tray of claim **33** wherein the set-up tray support comprises a rectangular recess in the upwardly facing surface bounded by four edges each positioned to restrain a set-up tray supported thereon in the fixed orientation on the organizer tray.

35.(New) An orthodontic organizer comprising the orthodontic appliance organizer tray of claim **33** and further comprising:

- an orthodontic set-up tray supported in the fixed orientation on the set-up tray support of the orthodontic appliance organizer tray, the orthodontic set-up tray having thereon a plurality of orthodontic appliance staging areas, each staging area being configured to support one tooth-positioning orthodontic appliance for transfer to a patient;
- the plurality of staging areas including one area for each of the teeth of a patient to which a tooth-positioning orthodontic appliance is to be attached in the orthodontic treatment of a patient arranged relative to each other on the set-up tray in a geometric

relationship that corresponds to the order of teeth in the mouth of a patient to which the respective appliances are to be attached.

36.(New) A system for organizing orthodontic appliances comprising the orthodontic organizer of claim **35**, wherein each of the holders has a plurality of substantially identical, tooth-specific, tooth-positioning orthodontic appliances held therein in the same predetermined orientation within the respective holder, one appliance of each plurality in the same holder being orthodontically configured for attachment to the same tooth of a patient when used in orthodontic treatment of the patient, with the tooth-specific, tooth-positioning orthodontic appliances held in different holders being orthodontically configured for attachment to different teeth of the patient such that one appliance from each holder forms a single-patient orthodontic appliance set for the orthodontic treatment of a patient.

37.(New) The system of claim **36** wherein:

the substantially identical, tooth-specific, tooth-positioning orthodontic appliances of each plurality are orthodontic brackets that each have 1) a bonding side for bonding to a tooth and a archwire support side opposite the bonding side on a labial-facial axis, 2) a gingival side and an occlusal side opposite the gingival side on a gingival-occlusal axis perpendicular to the labial-facial axis, and 3) a mesial side and a distal side opposite the mesial side on a mesial-distal axis perpendicular to the gingival-occlusal axis and the labial-facial axis, and wherein:

the plurality of holders each hold the respective pluralities of the orthodontic brackets in a predetermined orientation on the organizer tray, with each of the brackets in each respective plurality being held with their respective gingival-occlusal, labial-facial and mesial-distal axes parallel, and with their respective bonding, archwire-supporting, gingival, occlusal, mesial and distal sides facing in the same directions.

38.(New) The system of claim **37** wherein:

the holders include holders for each of a patient's upper teeth arranged in a first predetermined orientation relative to the set-up tray support, and holders for each of the patient's lower teeth arranged in a second predetermined orientation relative to the set-up tray support that is opposite the first predetermined orientation.

39.(New) The system of claim **36** wherein the substantially identical, tooth-specific, tooth-positioning orthodontic appliances of each plurality are orthodontic brackets, and the holders include holders for each of a patient's upper teeth arranged in a first predetermined orientation relative to the set-up tray support and each holding a package of substantially identical tooth-specific orthodontic brackets for each of the upper teeth of a patient, and holders for each of the patient's lower teeth arranged in a second predetermined orientation relative to the set-up tray support that is opposite the first predetermined orientation and each holding a package of substantially identical tooth-specific orthodontic brackets for each of the lower teeth of a patient.

40.(New) The organizer tray of claim **33** wherein:

the holders each include structure configured to receive a package of appliances and to hold the package in a specific orientation on the organizer tray, such that each appliance therein is held in the respective predetermined orientation with respect to the organizer tray;

said structure of each holder includes a recess having a pair of opposed slots on opposite sides thereof configured to receive a flange of the package of appliances and to hold the received package in the specific orientation relative to the organizer tray.

41.(New) The organizer tray of claim **33** further comprising:

a base having a plurality of storage compartments therein, each corresponding to one of the holders of the organizer tray and each configured to hold a supply of one of the orthodontic appliances; and

the organizer tray being moveably attached to the base so as to form an openable cover to the compartments therein.

42.(New) The organizer tray of claim **41** wherein:

the base has a compartment therein configured to hold a supply of set-up trays therein.

43. (New) An orthodontic appliance organizer tray for storing, in bulk, tooth-positioning orthodontic appliances and facilitating the setup of individual orthodontic cases, the organizer tray comprising:

means for restraining an orthodontic set-up tray in a given orientation on the organizer tray;
means for holding a plurality of tooth-specific, tooth-positioning orthodontic appliances in a predetermined orientation on the organizer tray in a fixed geometric relationship to the given orientation so that tooth-positioning orthodontic appliances held in the means for holding on the organizer tray can be transferred by translation and without rotation from the means for holding to a set-up tray, restrained by the means for restraining, in the same predetermined orientation with respect to the set-up tray that they had on the organizer tray.

44.(New) An orthodontic organizer comprising the organizer tray of claim **43** and further comprising:

an orthodontic set-up tray restrained on the orthodontic appliance organizer tray, the orthodontic set-up tray having thereon a plurality of bracket staging areas thereon, each configured to support an orthodontic bracket for transfer to a patient, the areas each corresponding to one of the teeth of a patient.

45.(New) A system for organizing orthodontic appliances comprising the organizer of claim **44** wherein:

each of the means for holding has a plurality of substantially identical, tooth-specific, orthodontic brackets held therein in the same predetermined orientation within the respective holder, one appliance of each plurality being configured for attachment to a different tooth of a patient to form a single-patient orthodontic brace; and
the bracket staging areas of the set-up tray are arranged relative to each other on the set-up tray in a geometric relationship that teeth in the mouth of a patient to which the brackets correspond.

46.(New) A system for organizing orthodontic appliances comprising the organizer of claim **44** and further comprising:

- a plurality of packages, one held by each of the means for holding, and each including a carrier having a plurality of bracket constraining elements therein;
- a plurality of substantially identical, tooth-specific, orthodontic brackets supported in each of the respective carriers, each bracket within each carrier being substantially identical and configured for placement on the same one of a patient's teeth;
- the brackets within each package being different from each other and respectively configured for placement on a different one of the patient's teeth;
- each package having a cover attached to the carrier to cover the plurality of brackets in each of the appliance constraining elements and removable from the carrier to simultaneously expose each of the plurality of brackets for removal from the bracket constraining elements;
- each bracket constraining element of each carrier having one of the plurality of orthodontic brackets therein, each constrained in the same orientation relative to the carrier, the bracket constraining elements snugly holding the respective brackets to the carrier when the cover is removed; and
- each carrier having guide structure thereon configured to fix the orientation of the package relative to an organizer tray when the package is loaded onto cooperating structure on the organizer tray and to thereby present the brackets supported on the carrier in the same orientation that is predetermined in relation to the organizer tray.

47.(New) The system of claim **44** wherein:

- each of the means for holding includes a pair of parallel, opposed slots in the organizer tray;
- each carrier has an elongated recess therein containing the plurality of bracket constraining elements therein;
- each bracket constraining element includes a cavity having surfaces shaped to hold one of the orthodontic brackets therein in a fixed orientation relative to the carrier; and

the guide structure includes a flange on the carrier configured to fit into a pair of the slots in an organizer tray to attach the package to the organizer tray in an orientation that is fixed relative to an organizer tray.

48.(New) The system of claim **47** wherein:

each of the bracket constraining elements has a shape configured to hold one of the orthodontic brackets in the cavity when the cavities are uncovered;
the carrier has the flange on opposite sides thereof and has a handle at one end thereof;
each bracket has a bonding base having a gingival edge on one side of the base;
the brackets are each being confined, base down, in each of the cavities with the gingival edge thereof facing the handle of the carrier;
the cover is slidably mounted on the flange so as to be slidably removable from the carrier to simultaneously expose the plurality of brackets and render the brackets accessible for removal from the bracket constraining elements; and
each of the bracket constraining elements includes a cavity having a resilient insert therein having surfaces shaped to snugly hold one of the orthodontic brackets in the cavity when the cover is removed.

49.(New) An orthodontic appliance package comprising:

an elongated carrier having a base with planar upwardly facing surface having an elongated downwardly extending recess formed therein;

the recess having a plurality of cavities therein arranged on a longitudinal centerline of the elongated recess, the recess having a flexible foam insert therein having the cavities formed therein each dimensioned to receive and to snugly but releasably hold an orthodontic bracket;

the base having a flat flange that extends outwardly in a plane along sides of the recess with a tab handle formed at one end thereof and a pair of straight parallel edges extending along opposite transverse sides thereof for guiding and supporting the package in an organizer tray;

a plurality of tooth-specific orthodontic brackets having substantially identical configurations that adapt the brackets for bonding to the same specific one of a patient's teeth, each bracket having a bonding base with opposite occlusal and gingival edges and opposite mesial and distal edges, each bracket being packaged in the one of the cavities of the carrier with base facing down and oriented with the occlusal edges of their bases facing in the same direction along the longitudinal centerline of the recess; and

an elongated cover having parallel internal channels formed along opposite transverse edges thereof which fit over the flange enclosing the brackets in the cavities and slidably removable from the carrier to expose the brackets for removal from the cavities.

50. (New) A system for organizing orthodontic appliances comprising:

a orthodontic organizer tray;
an orthodontic set-up tray supported in a fixed orientation on the orthodontic organizer tray;
a plurality of packages each held on the orthodontic organizer tray in a fixed orientation in relation to the set-up tray;
the orthodontic set-up tray a plurality of orthodontic appliance staging areas thereon, each having orthodontic appliance holding structure thereon, the plurality of staging areas including one area for each of the teeth of a patient;
each of the holders packages having a plurality of substantially identical, tooth-specific, tooth-positioning orthodontic appliances constrained therein in the same predetermined orientation, the appliances in each package being orthodontically configured for attachment to the same tooth of a patient, while the appliances in different ones of the packages being orthodontically configured for attachment to different teeth of the patient.

51.(New) The system of claim **50** wherein:

the appliances in each of the packages are orthodontic brackets that each have 1) a bonding side for bonding to a tooth and a archwire support side opposite the bonding side on a labial-facial axis, 2) a gingival side and an occlusal side opposite the gingival side on a gingival-occlusal axis perpendicular to the labial-facial axis, and 3) a mesial side and a distal side opposite the mesial side on a mesial-distal axis perpendicular to the gingival-occlusal axis and the labial-facial axis, and wherein:
the plurality of packages each hold the respective pluralities of the orthodontic brackets in a predetermined orientation on the organizer tray, with each of the brackets in each respective plurality being held with their respective gingival-occlusal, labial-facial and mesial-distal axes parallel, and with their respective bonding, archwire-supporting, gingival, occlusal, mesial and distal sides facing in the same directions.

52.(New) The system of claim **51** wherein:

each package has a parallel pair of opposed flanges on opposite sides thereof;

the organizer tray has structure thereon configured to receive the packages of appliances and to hold each of the packages in a specific orientation on the organizer tray, such that each appliance is held in the respective predetermined orientation with respect to the set-up tray;

said structure includes a plurality of recesses each having a pair of opposed slots on opposite sides thereof configured to receive a flange of the package of appliances and to hold the received package in the specific orientation relative to the organizer tray.

53.(New) The system of claim **51** further comprising:

a base attached to the organizer tray and having a plurality of storage compartments therein, each compartment having a supply of packages containing one of the tooth-specific orthodontic brackets.

54.(New) The system of claim **53** wherein:

the base has a compartment therein configured to hold a supply of set-up trays therein.

55.(New) The system of claim **53** wherein:

the bracket staging areas of the set-up tray are arranged relative to each other on the set-up tray in a geometric relationship that teeth in the mouth of a patient to which the brackets correspond have relative to each other; and

the packages are arranged on the organizer tray in a geometric relationship corresponding to the staging areas on the set-up tray.